

ABSTRACT

A permanent magnet motor assembly for use in a flywheel is disclosed, including a rotor, a stator, and a coil positioned in the stator. One or more magnets is attached to the rotor such that magnetic field lines are directed radially toward the coil for generating torque and thus driving the motor. A shield covers the magnet, preventing the magnetic flux lines from impacting a plate on the stator and causing excess heat and energy losses. The shield can be a cup or a snap-fit ring preferably made of magnetic steel which directs stray magnetic flux lines toward the rotor to be converted into useful work.

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